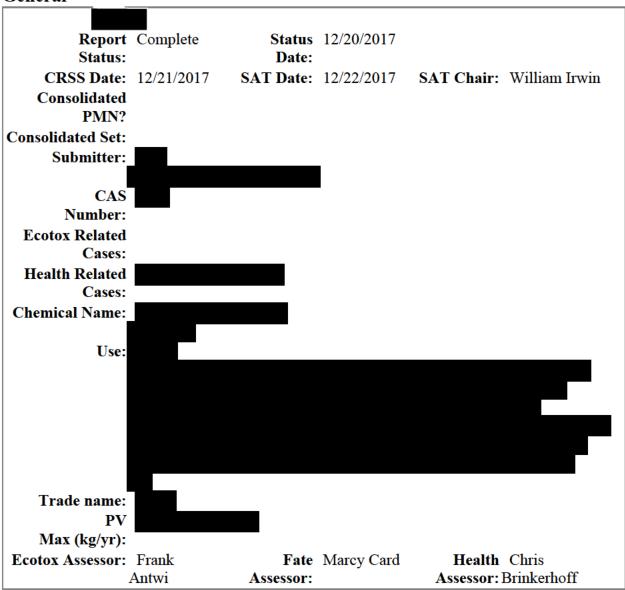
JS 10/21/21 RJA 01/06/22

SAT Report for Case # P-18-0068

General



Physical Chemical Information

Molecular Weight:	Physical State - Neat:		
Percent 500:	Percent 1000:		
Melting Point	Melting	MPD (EPI):	
(Measured):	Point (est):		
Vapor	Vapor	<0.000001 VP	
Pressure:	Pressure	(EPI):	
	(est):		
Water	Water	<0.000001/Reacts Water	
Solubility:	Solubility	Solubility	
	(EST):	(EPI):	
Log		Log	
Kow:		Kow (EPI):	
Log	Log P		
P:	Comment:		

SAT Concern

Ecotox Rating 1	Ecotox	
(1):	Rating	
	Comment	
	(1):	
Ecotox	Ecotox	
Rating (2):	Rating	
	Comment	
	(2):	
Health Rating 1	-2 Health	Concern for lung
(1):	Rating	overload
	Comment	
	(1):	
Health Rating	Health	
(2):	Rating	
	Comment	
	(2):	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
1	1	1	PMN
2	1	1	

Persistence	Bioaccumulation	Toxicity	Comments
			Hyd
			Pdt
3	*	1	Hyd Pdt

```
Exposure N
Based Review
(Health)?
Exposure Based N
Review
(Ecotox)?
SAT Lung, Irr- E, S.
Keywords: L
```

```
Fate Assessment P-18-0068
     Summary: FATE: MW =
                                      with
                                              < 500 and
                    < 1000
                \overline{S} = \overline{N}egligible / Reacts slowly
                Hydrolysis
                half-life = wk
                VP < 1.0E-6 torr at 25 °C (E)
                BP > 400 \, ^{\circ}C \, (E)
                H < 1.00E-8 (E)
                POTW removal (%) = PMN 90 via sorption and
                slow hydrolysis; then Hyd Pdt
                via sorption and biodeg; Hyd Pdt deg 90 via sorption
                Time for complete ultimate aerobic biodeg = Hyd Pdt
                                                                               wk;
                Hyd Pdt
                              deg > mo
                Sorption to soils/sediments = PMN strong; Hyd
                Pdt
                               strong; Hyd Pdt
                strong
                PBT Potential: PMN P1B1; Hyd Pdt
                    P2B1; Hyd Pdt deg P3B* (low)
                *CEB FATE: Migration to ground
                water = PMN slow; Hyd Pdt
                                                       slow; Hyd Pd
                      deg slow
                Bioconcentration factor to be put into E-FAST: Hyd Pdt
                 100.
```

PMN Material:

Overall wastewater treatment removal is

90% via sorption and slow hydrolysis.

Sorption to sludge is strong

based on high molecular volume.

Air Stripping (Volatilization to

air) is negligible based on high molecular volume.

Removal by

biodegradation in wastewater treatment is negligible based on high molecular volume.

PMN Material:

Low Persistence (P1) is based on

slow hydrolysis (hydrolysis half-life: days to weeks).

Low

Bioaccumulation potential (B1) is based on slow hydrolysis (hydrolysis half-life: days to weeks).

Hydrolysis Product (

Overall wastewater treatment removal is 90% via sorption and biodegradation.

Sorption to sludge is strong based on the estimated physical-chemical properties from EPISUITE.

Air Stripping

(Volatilization to air) is negligible based on the estimated physical-chemical properties from EPISUITE.

Removal by biodegradation

in wastewater treatment is high based on structure

).

The aerobic aquatic biodegradation half-life is weeks based on structure

The anaerobic aquatic biodegradation

half-life is months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater or equal to the aerobic biodegradation half-life.

Sorption to soil and sediment is strong based on the estimated physical-chemical properties from EPISUITE.

Migration to groundwater

is slow based on the estimated physical-chemical properties from EPISUITE.

Hydrolysis Product (

Moderate Persistence (P2) is

based on the anaerobic biodegradation half-life.

Low Bioaccumulation

potential (B1) is based on BCFBAF model estimates.

Hydrolysis

Product (

Overall wastewater treatment removal is 90%

via sorption.

Sorption to sludge is strong based on structure

(inorganic metal oxide) and analogous chemicals.

Air Stripping

(Volatilization to air) is negligible based on structure (inorganic metal oxide) and analogous chemicals.

Removal by biodegradation in

wastewater treatment is negligible based on structure (inorganic metal oxide) and analogous chemicals.

The aerobic aquatic biodegradation

half-life is greater than months based on structure (inorganic metal oxide) and analogous chemicals.

The anaerobic aquatic biodegradation

half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater or equal to the aerobic biodegradation half-life.

Sorption to soil and sediment is strong

based on structure (inorganic metal oxide) and analogous chemicals.

Migration to groundwater is slow based on structure (inorganic metal oxide) and analogous chemicals.

Hydrolysis Product (

:

High Persistence (P3) is based on the anaerobic biodegradation half-life and analogous chemicals.

Bioaccumulation potential

(B*-low) is based on analogous chemicals.

Bioconcentration/Bioaccumulation factor to be put into E-Fast:

100

Removal in 90;90;90

WWT/POTW

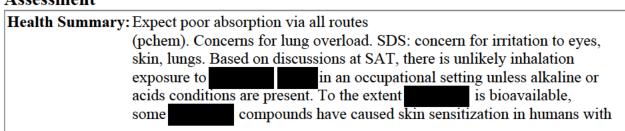
(Overall):

Condition	Rating Values	Comment
	w/ Rating Description	
WWT/POTW	3;3;3	
Sorption:		
	4;4;4	

Condition	Rating Values	Comment
	w/ Rating Description	
WWT/POTW		
Stripping:		
Biodegradation	4;2;4	
Removal:		
Biodegradation Destruction:		
Aerobic Biodeg	.2.4	
Ult:	;2;4	
Aerobic		
Biodeg Prim:		
Anaerobic Biodeg	;3;4	
Ult:		
Anaerobic		
Biodeg Prim:	4	
Hydrolysis (t1/2 at pH 7,25C) A:	4	
Hydrolysis (t1/2		
at pH 7,25C) B:		
Sorption to	2;2;2	
Soils/Sediments:		
Migration to	2;2;2	PMN
Ground Water:		slow; Hyd Pd deg slow
Photolysis A,		
Direct:		
Photolysis B,		
Indirect:		
Atmospheric Ox		
A, OH:		
Atmospheric Ox B, O3:		
В, ОЗ.		

Health

Assessment



salts having oral LD50 values over 1688 mg/kg (Ullmann's Ulmman's Encylopedia for Industrial Chemicals).

Routes of Dermal Drinking Exposure: Water Inhalation

Test

Data Submitted

Test Data For the LOAEL in a rat Submitted: chronic study was 0.79 mg/kg/day based on increased cholesterol.

Ecotox Assessment

Test organism	Test	Test	Predicted	Measured	Comments
	Type	Endpoint			
Fish	96 -h	LC50	*		
Daphnid	48 -h	LC50	*		
Green Algae	96 -h	EC50	*		
Fish	-	Chronic	*		
		Value			
Daphnid	-	Chronic	*		
		Value			
Green Algae	-	Chronic	*		
		Value			

Factors	Most Sensitive Endpoint	Assessment Factor	СоС	Comment
Acute		5		*
Acquatic:				
Chronic		10		*
Acquatic:				

Ecotox Route of No
Exposure? releases to water

Factors	Values	Comments
SARs:		
	Compounds	
SAR Class:		
	Compounds-	
	insoluble	
TSCA NCC		
Category?	Compounds	

Recommended Testing

Ecotox

Value Comments

Predictions are based on analog data for compounds; MW with < 1000; with an unknown MP (P); S = negligible (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness < 150 mg/L as CaCO3; and TOC < 2.0 mg/L.

Ecotox Factors Comments

Focus Report/Decision Document: Environmental Hazard and Risk (P-18-0068)

Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using hazard data on analogous chemicals. Based on these estimated hazard values from, EPA concludes that this chemical substance low environmental hazard.

· Substance falls within the TSCA New Chemicals Category of Compounds

· SAR chemical class of Compounds- insoluble.

 $\cdot Low$

hazard based on no effects at saturation.

Environmental Risk:

· Risks were not identified for ecotoxicity.

Testing

Recommendations:

· None